

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



28 APR 2005

(10) International Publication Number
WO 2004/039818 A1

(43) International Publication Date
13 May 2004 (13.05.2004)

PCT

(51) International Patent Classification⁷: C07F 9/12, C09K 21/12, C08K 5/52

(21) International Application Number:
PCT/US2003/034038

(22) International Filing Date: 25 October 2003 (25.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/421,520 26 October 2002 (26.10.2002) US

(71) Applicant (for all designated States except US): AKZO NOVEL N.V. [NL/NL]; Verlperweg 76, P.O. Box 9300, NL-6800 SB Arnhem (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEVCHIK, Sergei [BY/US]; 51 Harrison Street, Croton-on-Hudson, NY 10520 (US). ALESSIO, Gerald, R. [US/US]; 129 Lincoln Blvd., Emerson, NJ 07630 (US).

(74) Agent: FENNELLY, Richard, P.; Akzo Nobel Inc., Intellectual Property Department, 7 Livingstone Avenue, Dobbs Ferry, NY 10522-3408 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/039818 A1

(54) Title: RETARDATION OF CRYSTALLIZATION IN OLIGOMERIC PHOSPHATE COMPOSITIONS

(57) Abstract: Storing, for a period of time, of a blend comprising an arylene-bridged oligomeric phosphate composition and an effective amount of an alkylene-bridged bisphosphate results in a retardation of crystallization as compared to storage of a composition comprising the arylene-bridged oligomeric phosphate composition without also containing the alkylene-bridged bisphosphate.

INTERNATIONAL SEARCH REPORT

PCT/US 03/34038

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C07F9/12 C09K21/12 C08K5/52

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 C07F C09K C08K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, Y	<p>WO 96/11996 A (AKZO NOBEL NV ;BRIGHT DANIELLE A (US); AARONSON ALAN M (US); PIRRE) 25 April 1996 (1996-04-25) cited in the application abstract table page 1, line 20 – line 24 page 2, line 31-35 page 3, line 12-18 claim 1</p> <p>---</p> <p>US 6 319 432 B1 (KLOBUCAR W DIRK ET AL) 20 November 2001 (2001-11-20) cited in the application column 1, line 67 -column 2, line 32</p> <p>---</p> <p>-/-</p>	1-5
Y		1-5

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "8" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 April 2004	19/04/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Meiners, C

INTERNATIONAL SEARCH REPORT

PCT/US 03/34038

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 750 756 A (BRIGHT DANIELLE A ET AL) 12 May 1998 (1998-05-12) examples 1-7 -----	1-5
A	WO 96/11977 A (AKZO NOBEL NV ;BRIGHT DANIELLE A (US); MOY PAUL Y (US)) 25 April 1996 (1996-04-25) cited in the application the whole document -----	1-5

INTERNATIONAL SEARCH REPORT

PCT/US 03/34038

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9611996	A	25-04-1996	WO	9611996 A1		25-04-1996
US 6319432	B1	20-11-2001	CN EP JP WO	1355808 T 1194435 A1 2003502451 T 0077012 A1		26-06-2002 10-04-2002 21-01-2003 21-12-2000
US 5750756	A	12-05-1998	US DE DE WO EP JP CN DE DE EP JP WO	6136997 A 69709871 D1 69709871 T2 9804566 A1 0915891 A1 2000516587 T 1167488 A ,B 69530503 D1 69530503 T2 0789703 A1 10508021 T 9613508 A1		24-10-2000 28-02-2002 06-06-2002 05-02-1998 19-05-1999 12-12-2000 10-12-1997 28-05-2003 29-01-2004 20-08-1997 04-08-1998 09-05-1996
WO 9611977	A	25-04-1996	CA EP JP JP WO	2202164 A1 0785966 A1 10507472 T 3405543 B2 9611977 A1		25-04-1996 30-07-1997 21-07-1998 12-05-2003 25-04-1996